



# **The U.S. Army Communications Electronics Command (CECOM)**

**Presentation by  
Victor J. Ferlise  
Deputy to the CG**

***Providing Information Dominance  
for America's Warfighter***



**CECOM Bottom Line: The Soldier**



# The Communications-Electronics Command



**CECOM Bottom Line: THE SOLDIER**



# Spectrum of Conflict

the PROBABILITY of Conflict  
VS.  
the INTENSITY of Conflict

Probability

Intensity

LOW INTENSITY  
HIGH Probability

MED INTENSITY  
MED Probability

HIGH INTENSITY  
LOW Probability

CECOM Bottom Line: THE SOLDIER

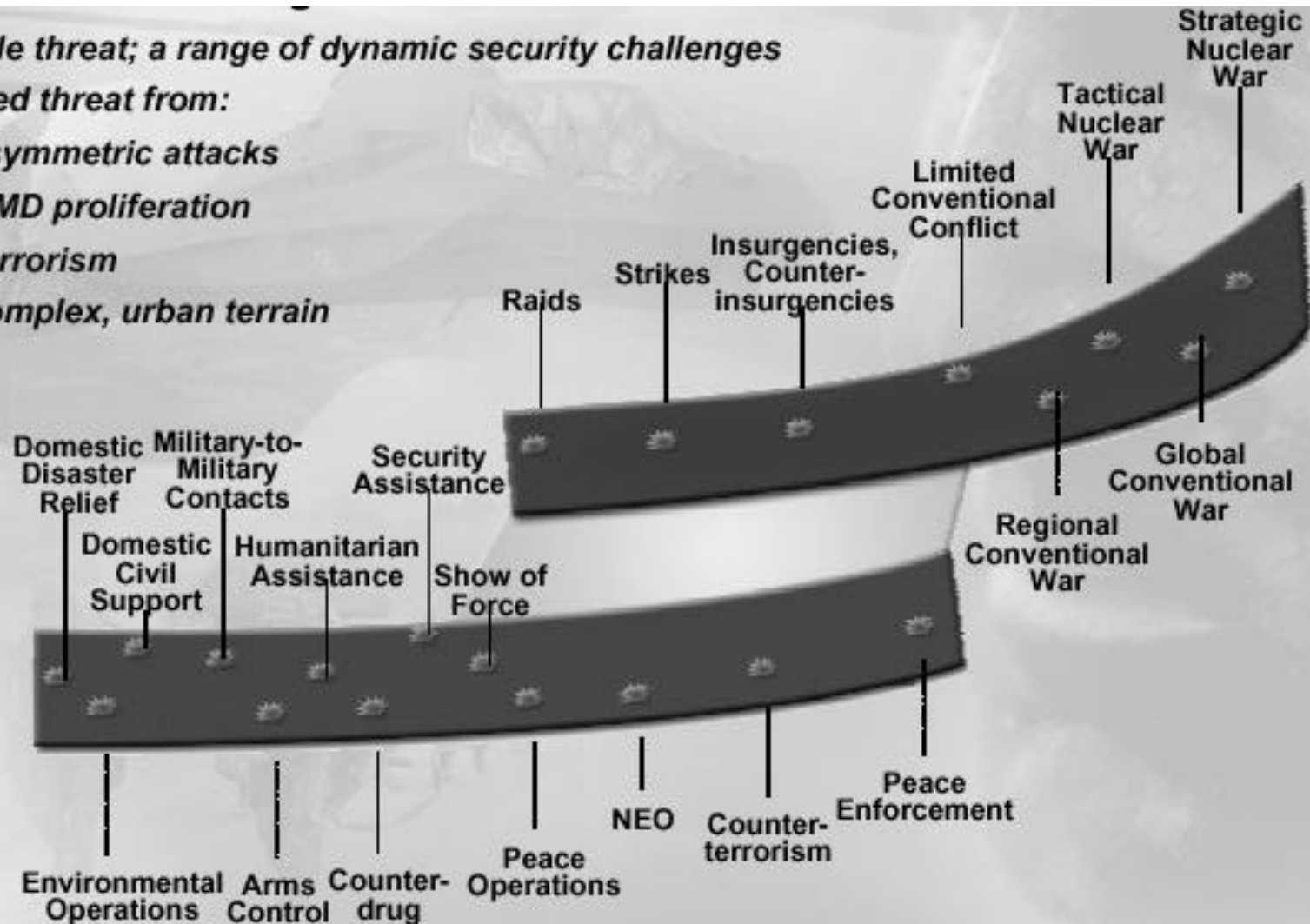


# Full Spectrum Challenges

*No single threat; a range of dynamic security challenges*

*Increased threat from:*

- *Asymmetric attacks*
- *WMD proliferation*
- *Terrorism*
- *Complex, urban terrain*

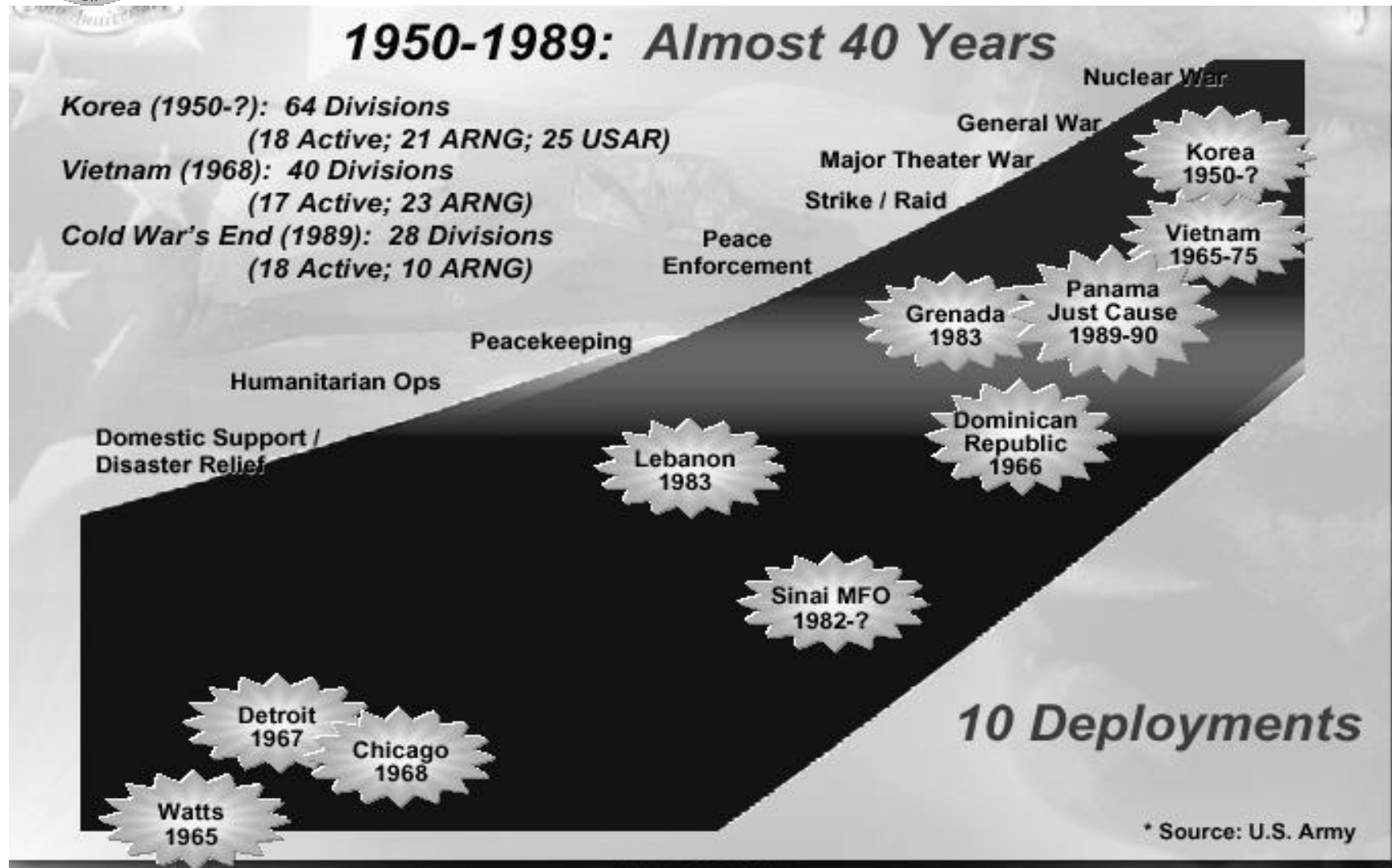


**CECOM Bottom Line: THE SOLDIER**





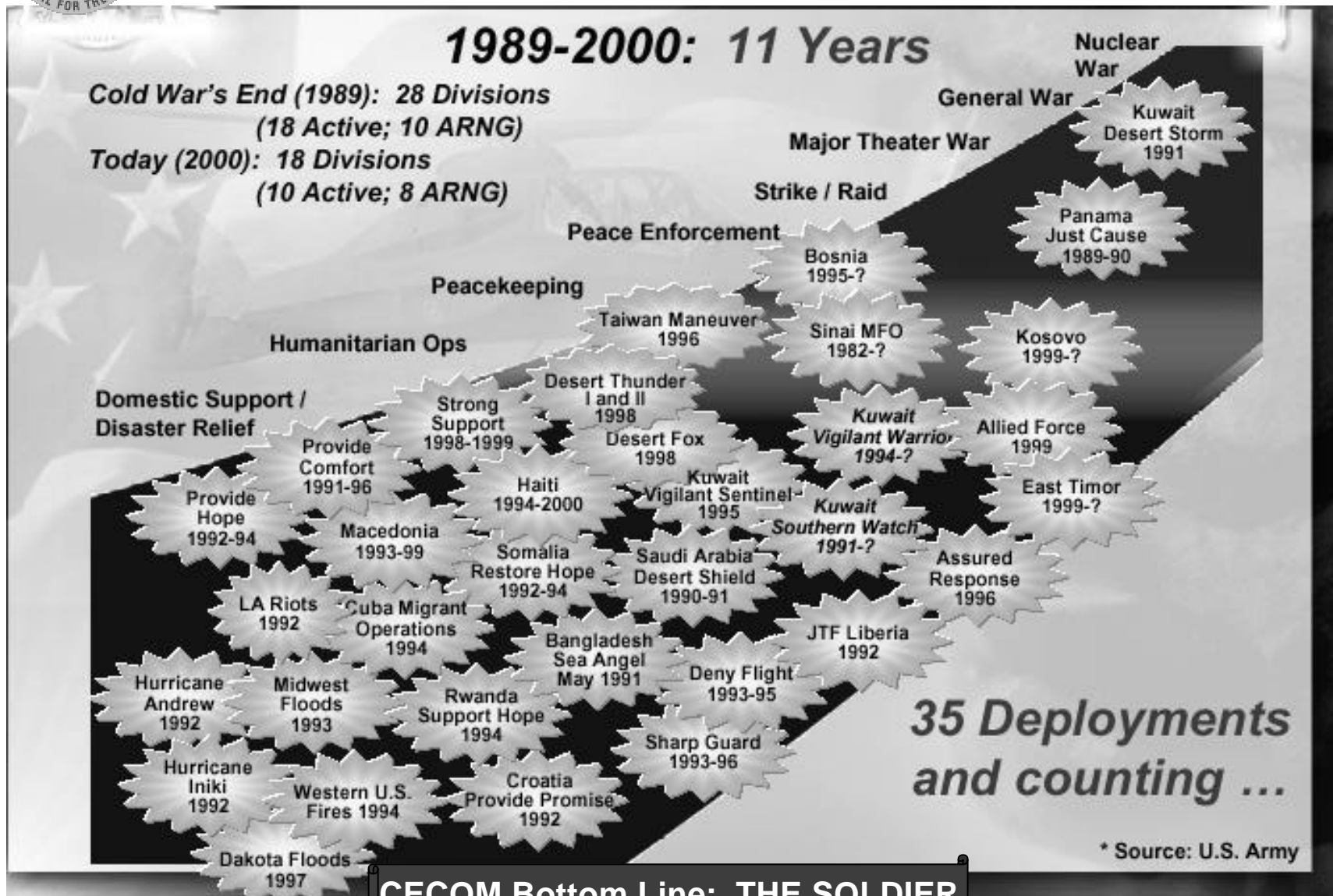
# 1950-1989 Deployments



CECOM Bottom Line: THE SOLDIER



# 1989-2000 Deployments



**CECOM Bottom Line: THE SOLDIER**



# The Army Vision



## CSA Vision Speech

***"The Most Esteemed Institution in the Nation, the Most Respected Army in the World, and the Most Feared Ground Force to Those Whose Actions Would Threaten the Vital Interests of the U.S."***

- ***Responsive***
- ***Deployable***
- ***Agile***
- ***Versatile***
- ***Lethal***
- ***Survivable***
- ***Sustainable***

**Soldiers on Point for the Nation**  
**Persuasive in Peace;**  
**Invincible in War**

- ***1 Bde in 96 hrs***
- ***1 Div in 120 hrs***
- ***5 Divs in 30 days***

- ***Increase Strategic Responsiveness***
- ***Improve Operational Jointness***
- ***Develop Leaders for Joint Warfighting and Change***
- ***Complete Full AC / RC Integration***
- ***Man Warfighting Units***
- ***Provide Well-Being of Soldiers, Civilians and Families***
- ***Help Soldiers Achieve Goals***

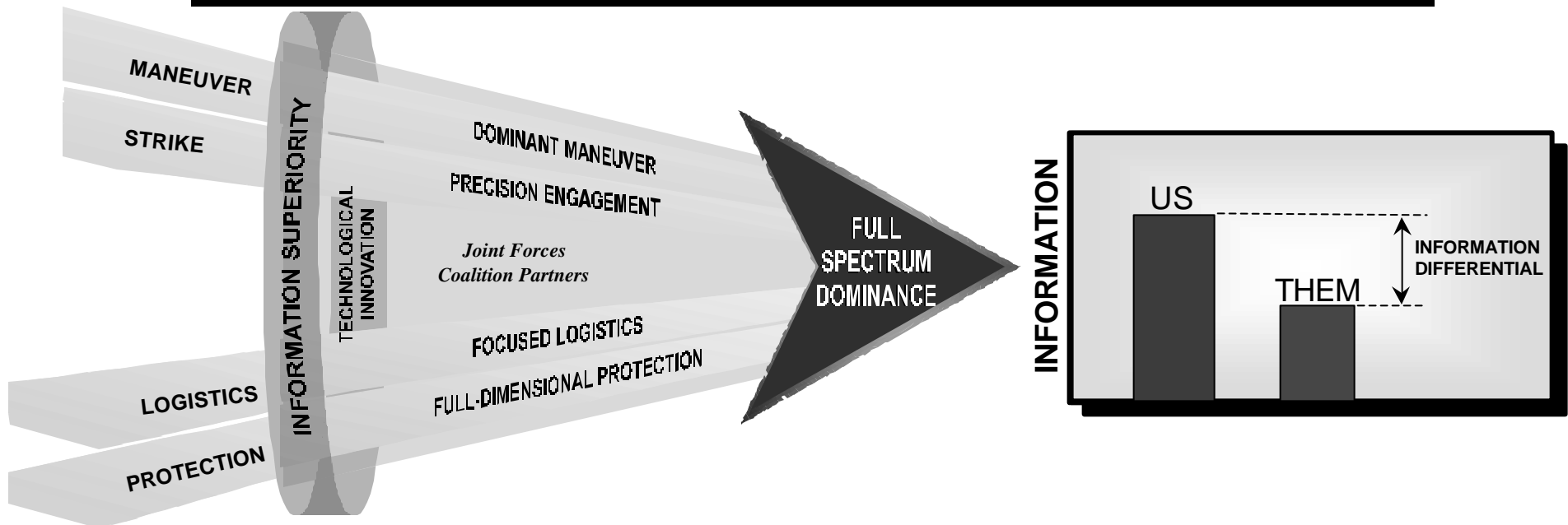
**CECOM Bottom Line: THE SOLDIER**



# Information Dominance the Key to the Army's Future Vision

*Information Dominance Requires the Ability To:*

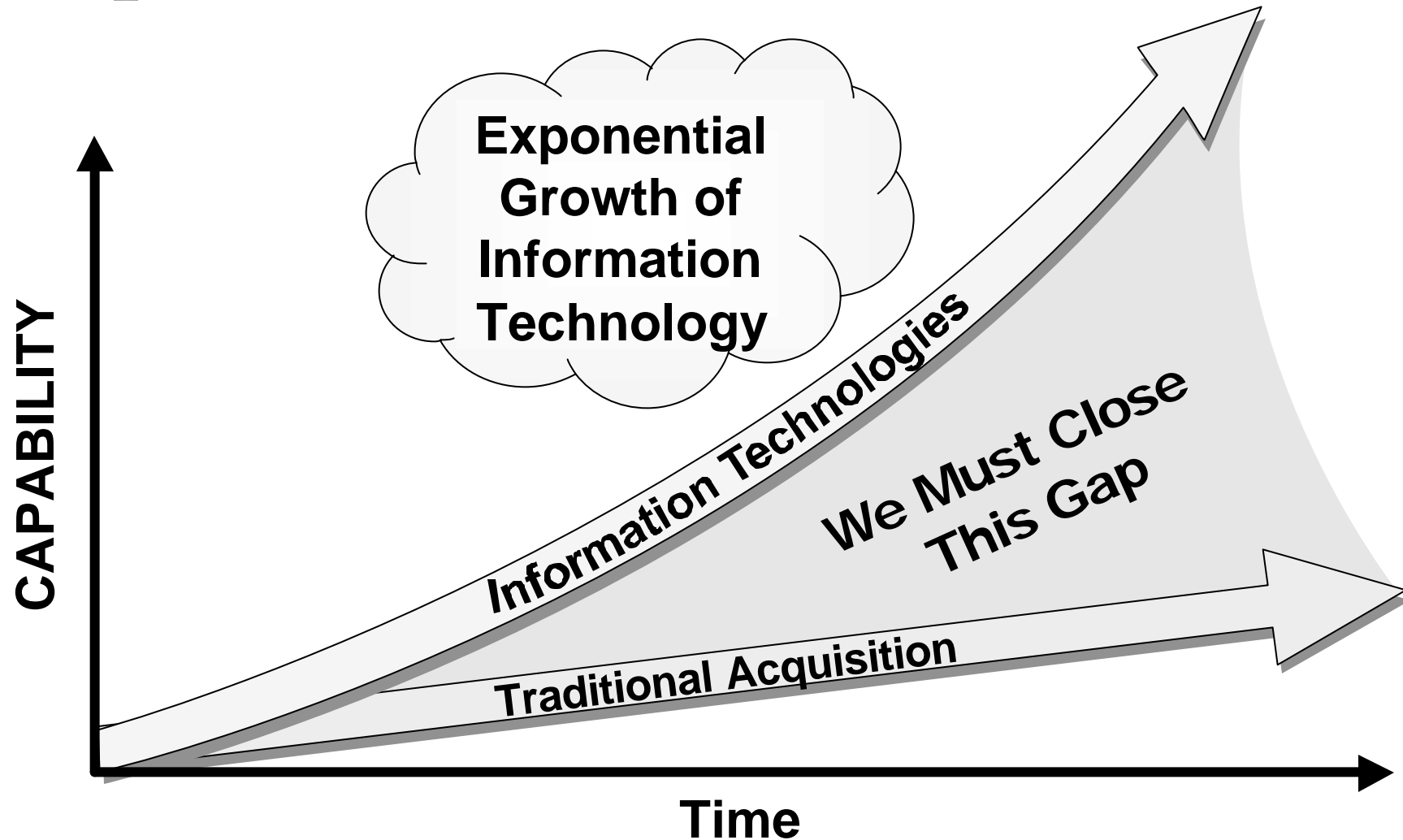
- \* Collect*
  - \* Process*
  - \* Disseminate*
- Information Globally*



**CECOM Bottom Line: THE SOLDIER**



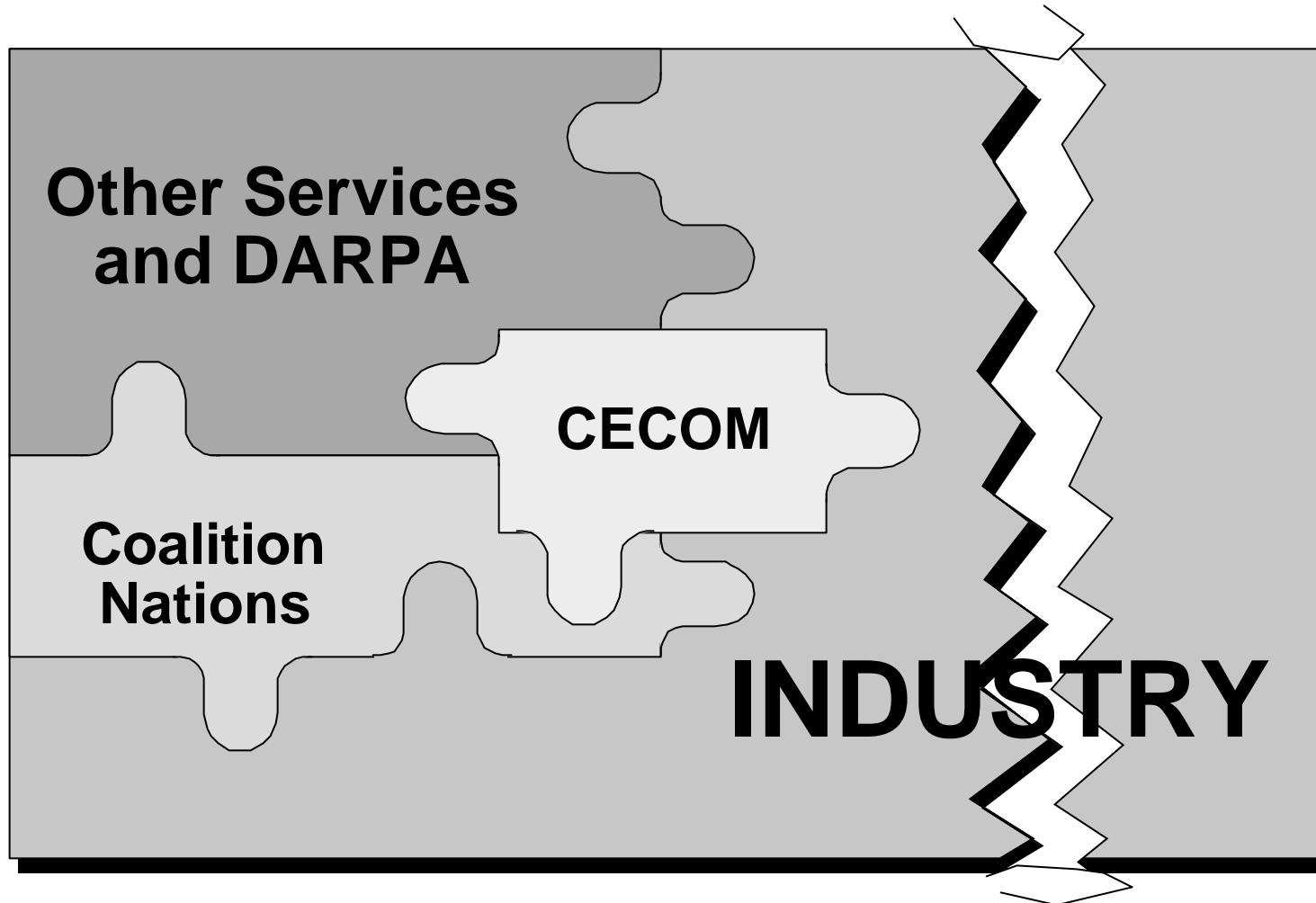
# Impact of Information Technology



**CECOM Bottom Line: THE SOLDIER**



# Where do C4ISR Technologies and Products Come From



**CECOM Bottom Line: THE SOLDIER**



# Goals

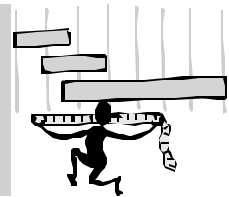
**1. Provide cost-effective technology systems that will enable force modernization, facilitate joint operations, and erase the distinction between light and heavy forces**



**2. Provide advanced technologies in key areas of long-term interest to the Army**



**3. Reduce the time and cost required to develop and transition technology to the soldier**



**4. Serve as the principal Army “smart buyer” and “smart provider” of technology and become a more widely recognized center of technical excellence**



**CECOM Bottom Line: THE SOLDIER**



# **The Private Sector** ...has evolved a clear and implementable ***Vision of the Future***

**INFORMATION** is a valuable Commodity -  
(must be available when and where needed)

**Everyone and Everything** will be part of the “Web”

**Entities** integrated into the network-centric “Web” will be -  
static/mobile - people/sensors - sources/users

**Infrastructure** will be -  
scaleable - flexible - adaptable

**Market-Based requirements, powered by e-commerce  
and the delivery of Internet services & products.**





# **The Military Sector**

**...has evolved a clear and implementable**

## ***Vision of the Future***

**INFORMATION** is a valuable Commodity -  
(must be available when and where needed)

**Everyone and Everything** will be part of the “Web”

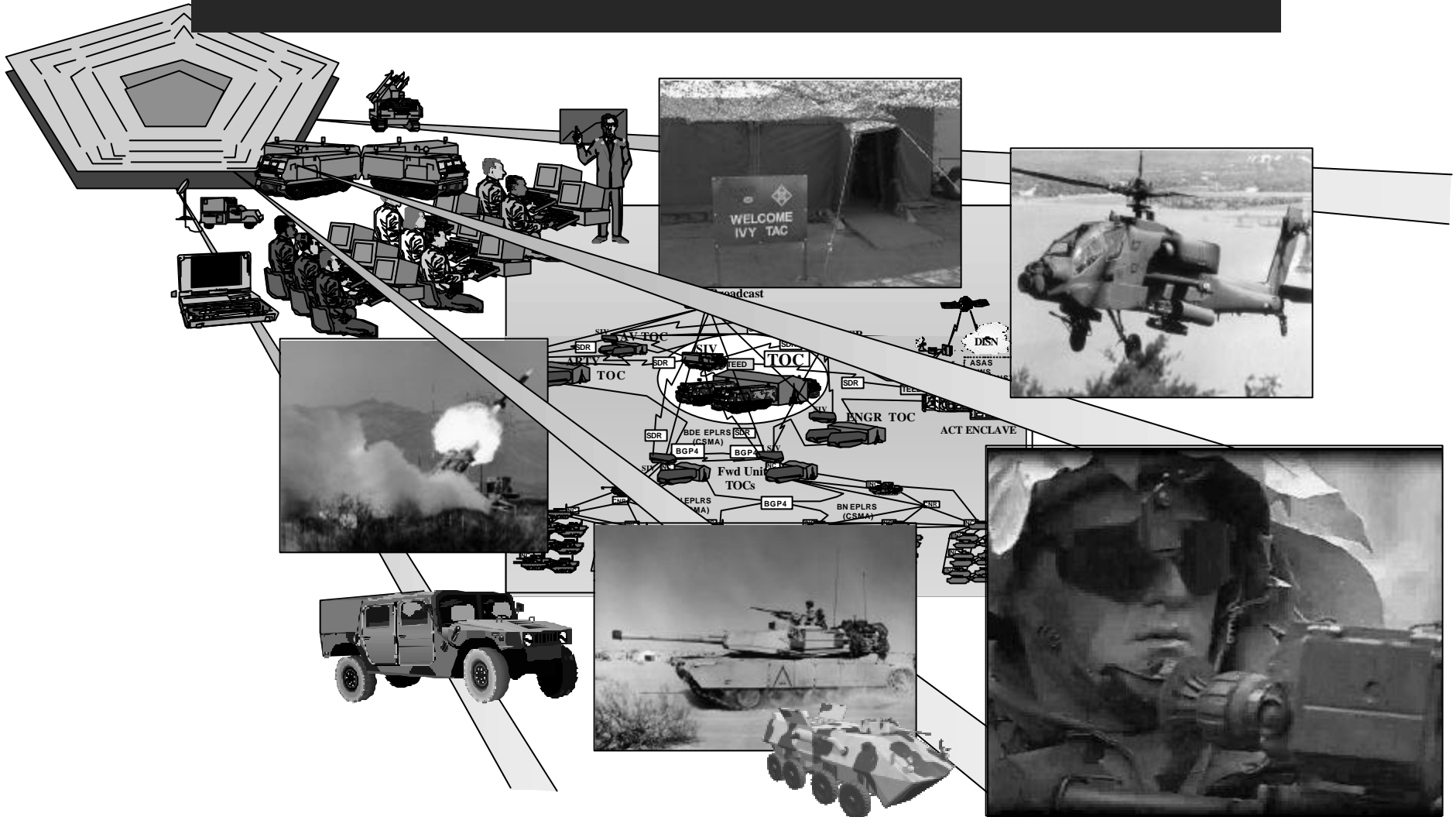
**Entities** integrated into the network-centric “Web” will be -  
static/mobile - people/sensors - sources/users

**Infrastructure** will be -  
scaleable - flexible - adaptable

**Success-Based requirements, driven by technology  
and the delivery of Effective Military Power.**



# CECOM Responsibilities from the National Command Authority to the Foxhole



**CECOM Bottom Line: THE SOLDIER**

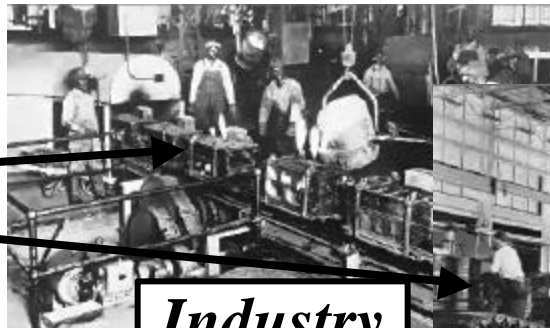


# CHANGING TIMES

## Old Way



Soldier Talks



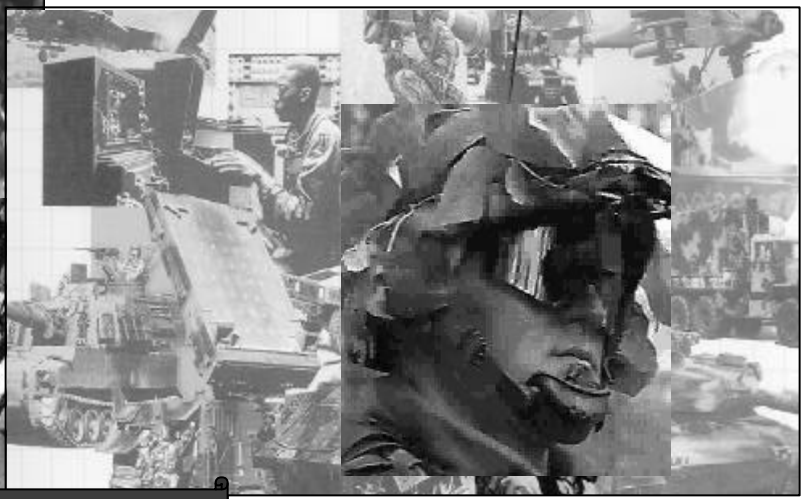
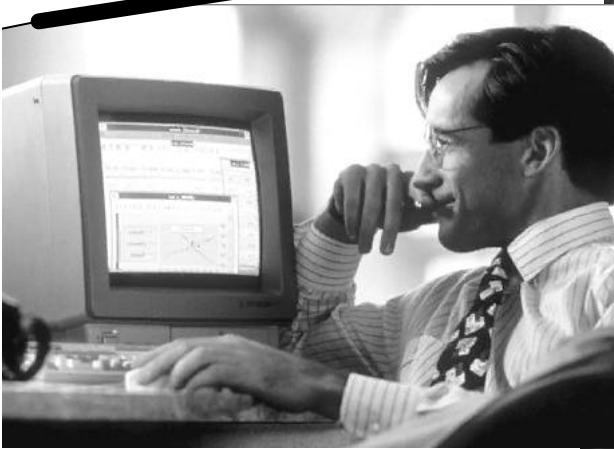
Industry Listen

Industry Acts



## New Way

A COLLABORATIVE TEAM



CECOM Bottom Line: THE SOLDIER



# C4ISR Development Philosophy



Adopt Commercial off the shelf Technology

***Adopt***

Adapt Commercial Technology  
When It Cannot Be Directly Inserted

***Adapt***

Develop Technology in Concert With Other  
Services and Agencies for Unique Areas  
And Partnerships, Alliances, Teaming

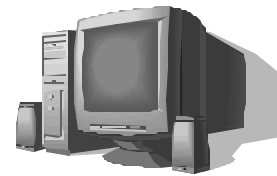
***Develop***



# ***C4ISR Development Examples of Adopt, Adapt, Develop for Land Warrior***

**Adopt**

**Adapt**



Land Warrior Soldier Digitization  
Integrated Into Army Standard  
Loadbearing (MOLLE)

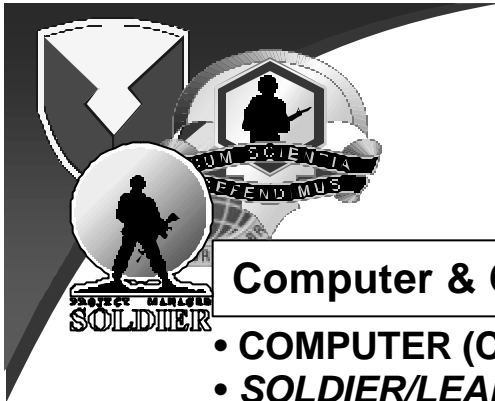
**Develop**



Thermal Weapon  
Sight

*Dual Use - Firefighters*

**CECOM Bottom Line: THE SOLDIER**



# Adopt, Adapt, Develop: Land Warrior



## Computer & Comm/Nav

- **COMPUTER (COTS - PC-104)**
- **SOLDIER/LEADER COMMS**  
(COTS - PCMCIA)
- **GPS (COTS & GOTS)**
- **HANDHELD DISPLAY (COTS)**
- **KEYBOARD UNIT (COTS)**

## Protective Clothing and Individual Equipment

- **MOLLE (MARINE/ARMY GOTS)**
- **INTERCEPTOR BODY ARMOR**  
(MARINE/ARMY GOTS)
- **OTHER CIE (ARMY GOTS)**
- **POUCH CELL BATTERIES (GOTS)**
- **ANTENNAS (GPS, Commo)**

## Networking

- **PERSONAL AREA NETWORK (COTS)**
- **LW LOCAL AREA NETWORK**
- **TI CONNECTIVITY**
- **FBCB2 INTEROPERABILITY**
- **Wiring Harnesses**

## Integrated Helmet Assembly

- **MICH (MARINE/ARMY GFE)**
- **NVG (PVS-14 GFE)**
- **AUDIO SYSTEM (COTS)**
- **COLOR DISPLAY (COTS)**
- **Wiring Harness**

## Weapon System

- **M4 RIFLE (GOTS)**
- **MEDIUM TWS (GOTS)**
- **MULTI-FUNCTION LASER (COTS)**
- **DAYLIGHT VIDEO SIGHT (COTS)**
- **Wiring Harness**

## Software

- **SOFTWARE (COTS/GOTS)**
  - **W2K, CE, ORACLE, MCS-L, CMP**
- **Software (New for v1.0)**
  - *Soldier's Tactical Picture*
  - *Secure voice/data*
  - *Image Capture, Xmit/Recv*
  - *Improved Power Management*
  - *Mission Data Support*
  - *Frequency Management*

<b>ADOPT</b>	=	<b>COTS/COTS SUITABLE AS IS</b>
<b>ADAPT</b>	=	<b>ADOPTED BUT REQUIRES SOME ADDED REFINEMENT</b>
<b>Develop</b>	=	<b>EMD/Rework Necessary</b>



# What CECOM Does for the Soldier... Today and Tomorrow



*Whatever the Soldier needs in the areas of...*

- *Communications*
- *Command & Control*
- *Computing*
- *Intelligence*
- *Electronic Warfare*
- *Sensors*

***CECOM Provides it!***

## *Total Support:*



Maintenance



Spare Parts



Software



Security Assistance



New Equip.  
Training



Tech Assistance  
in the Field

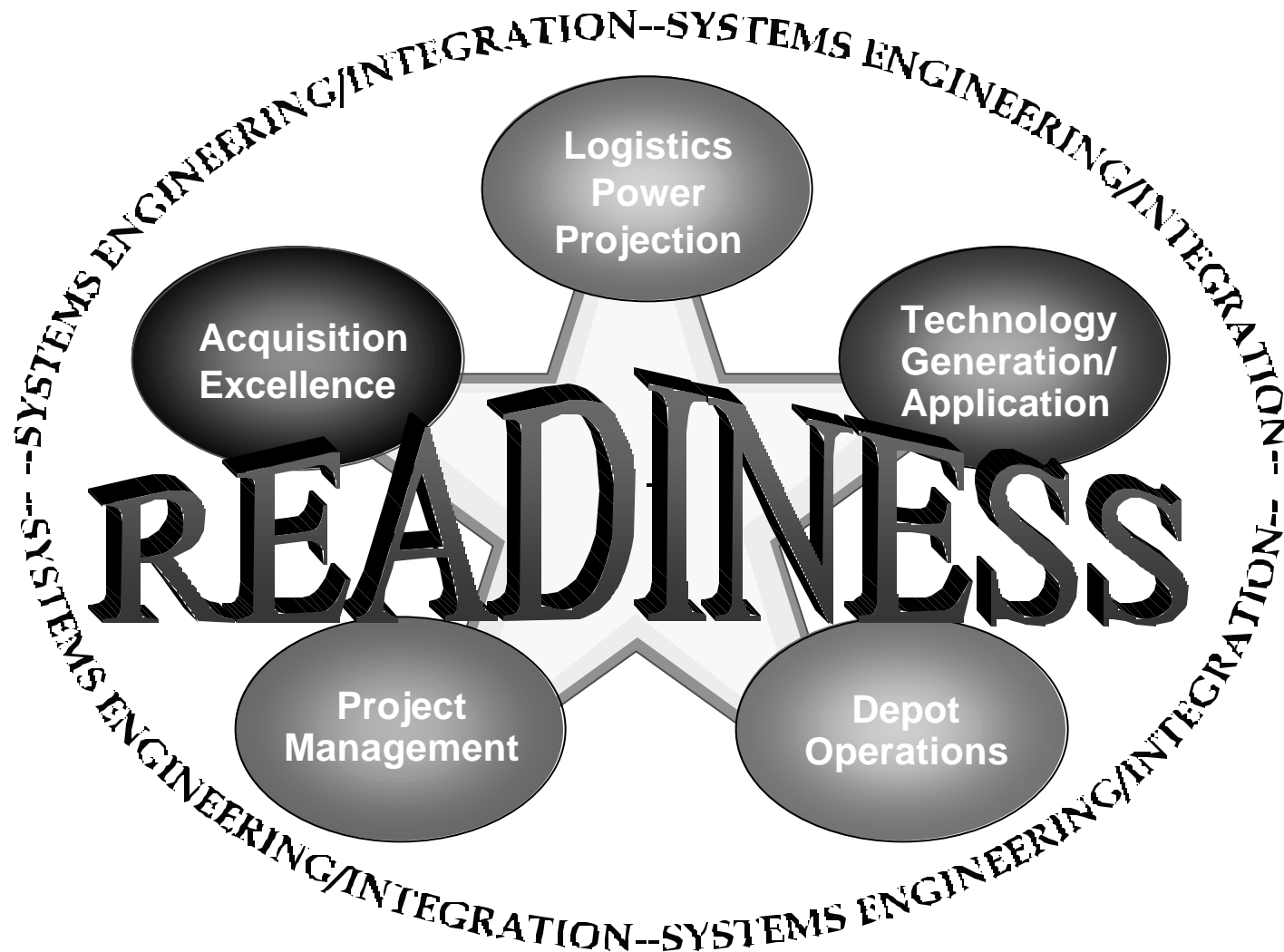


Science &  
Technology

**CECOM Bottom Line: THE SOLDIER**



# Core Competencies

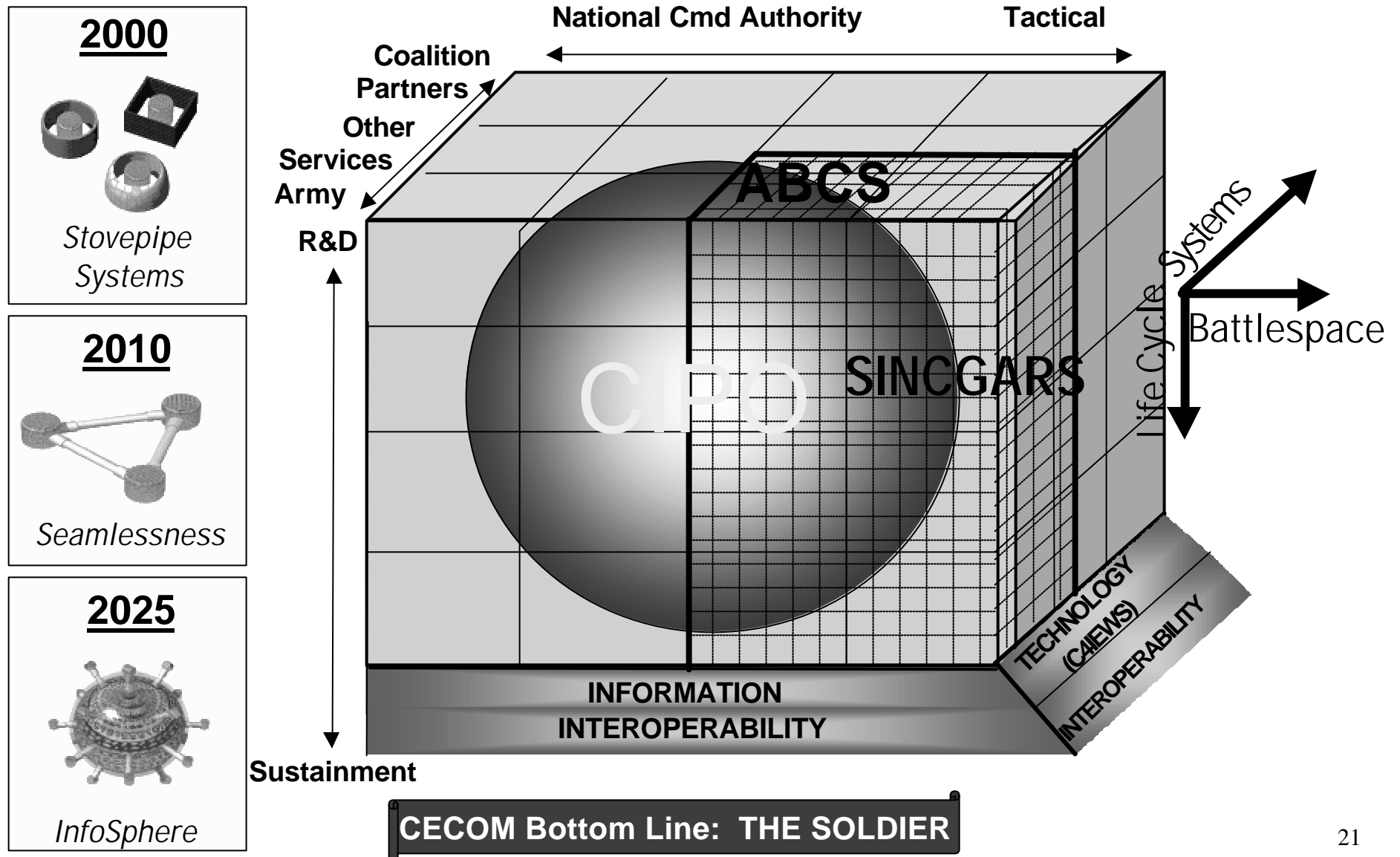


CECOM Bottom Line: THE SOLDIER



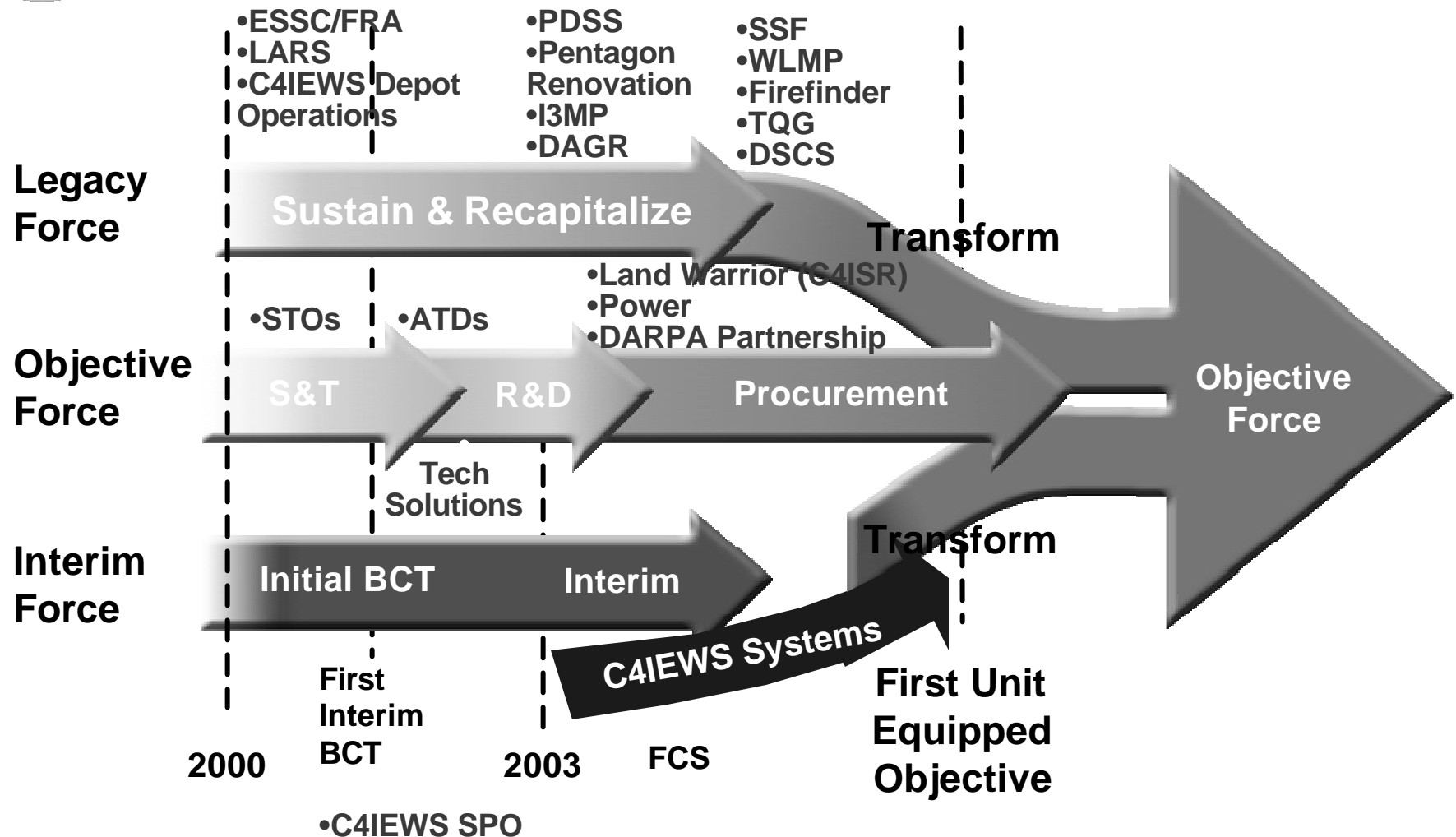


# Multidimensional Integration





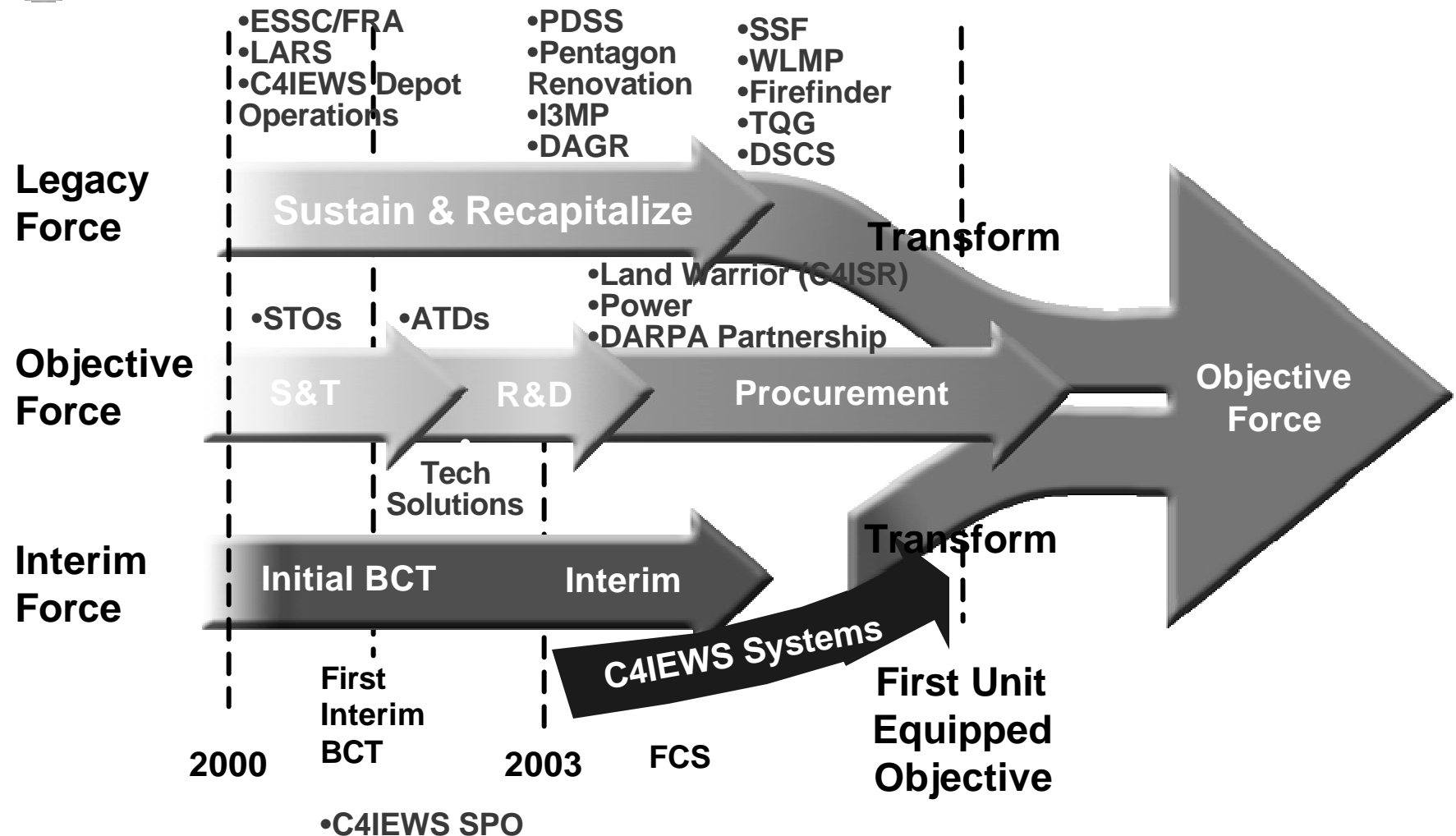
# Supporting The Army's Transformation



CECOM Bottom Line: THE SOLDIER



# Interim Force



CECOM Bottom Line: THE SOLDIER

**IBCT**

**BCT C4ISR**



**FIELD OFFICE**

**CECOM Bottom Line: THE SOLDIER**



# C4ISR Equipment For IBCT1



AFATDS



Prophet Ground



ASAS, RWS



CI&IOPS



I-REMBASS



SPITFIRE (AN/PSC-5)



Firefinder AN/TPQ-37(V)8



AN/PVS-7 NVG



Joint STARS Common Ground Station



SINCGARS



ASAS



CSSCS



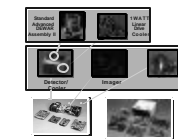
ITRT



STAR-T



MTS



HTI FLIR



AN/TSQ-190(V)3



AN/TPQ-36(V)8



BSN/BRSS



PLGR, AN/PSN-11(V)



MCS



Tactical Internet Manager



Rigid Wall Shelters



TROJAN LITE(V)2



DTSS-L



ACT-E



CAISI



NTDR



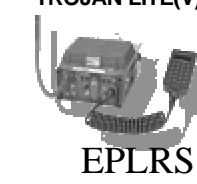
BDE TUAV Surrogate



PPS-5D



MNVD



EPLRS



DTSS-D



ADACC



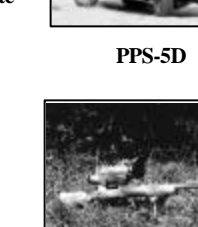
CHATS



IMETS



MC4



AN/PVS-10



AN/VAS-5 DVE



TOCs



FED/LFED HTU



LVRS



IRAS3

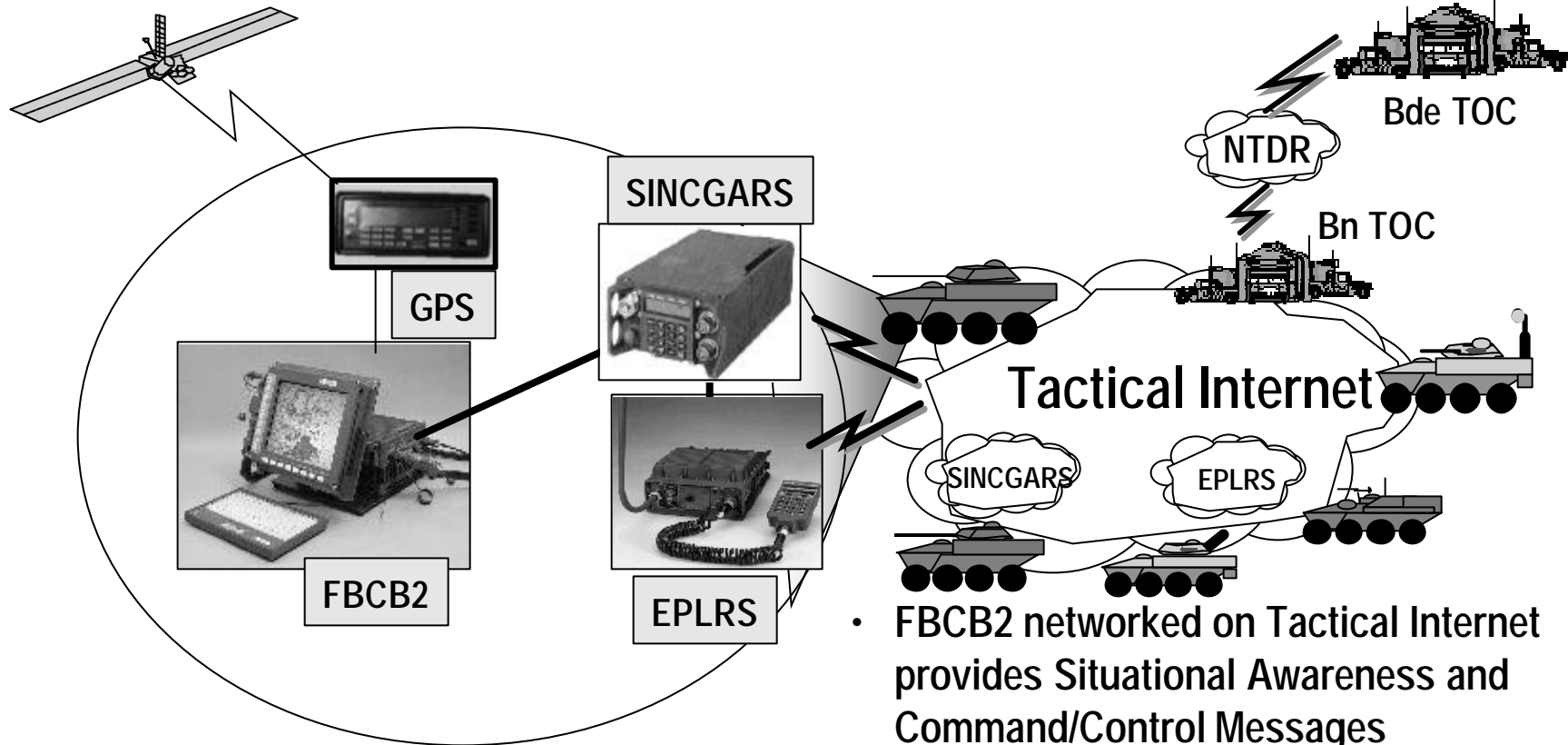


FBCB2

**CECOM Bottom Line: THE SOLDIER**



# Situational Awareness Equipped Vehicle Functionality in the BCT



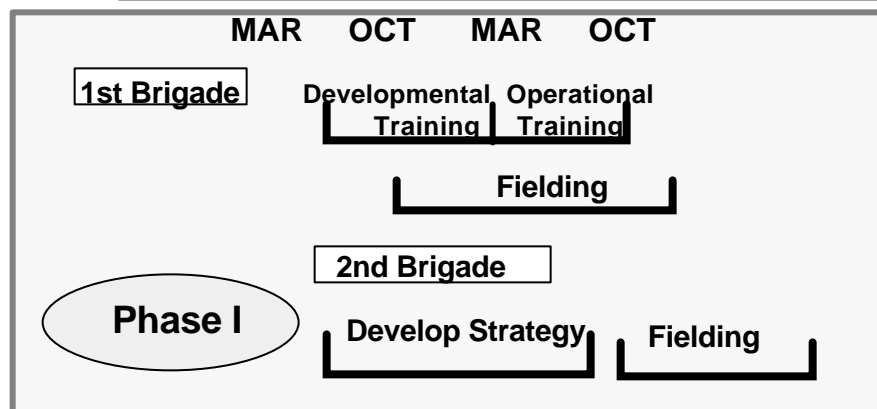
Force XXI Battle Command  
(Battalion/Brigade) & Below (FBCB2)  
provides its own location on a map

- FBCB2 networked on Tactical Internet provides Situational Awareness and Command/Control Messages
- Military Symbols on map background give:
  - Where am I?
  - Where are my friends?
  - Where is the enemy?

**CECOM Bottom Line: THE SOLDIER**



# BCT Notional Schedule

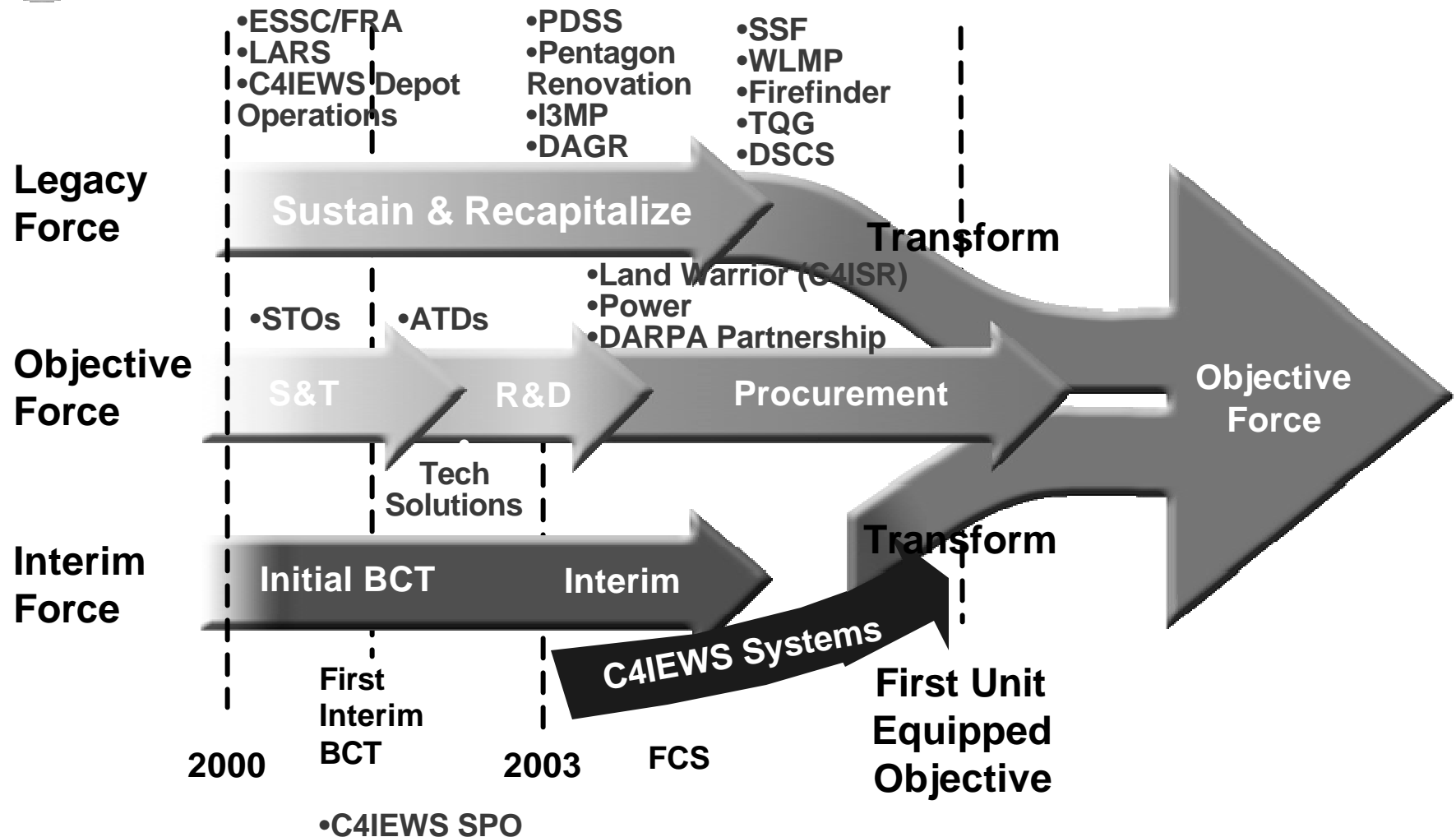


C4ISR Equipment  
from PEO C3S, PEO IEWS,  
PEO STAMIS,  
and CECOM

**CECOM Bottom Line: THE SOLDIER**



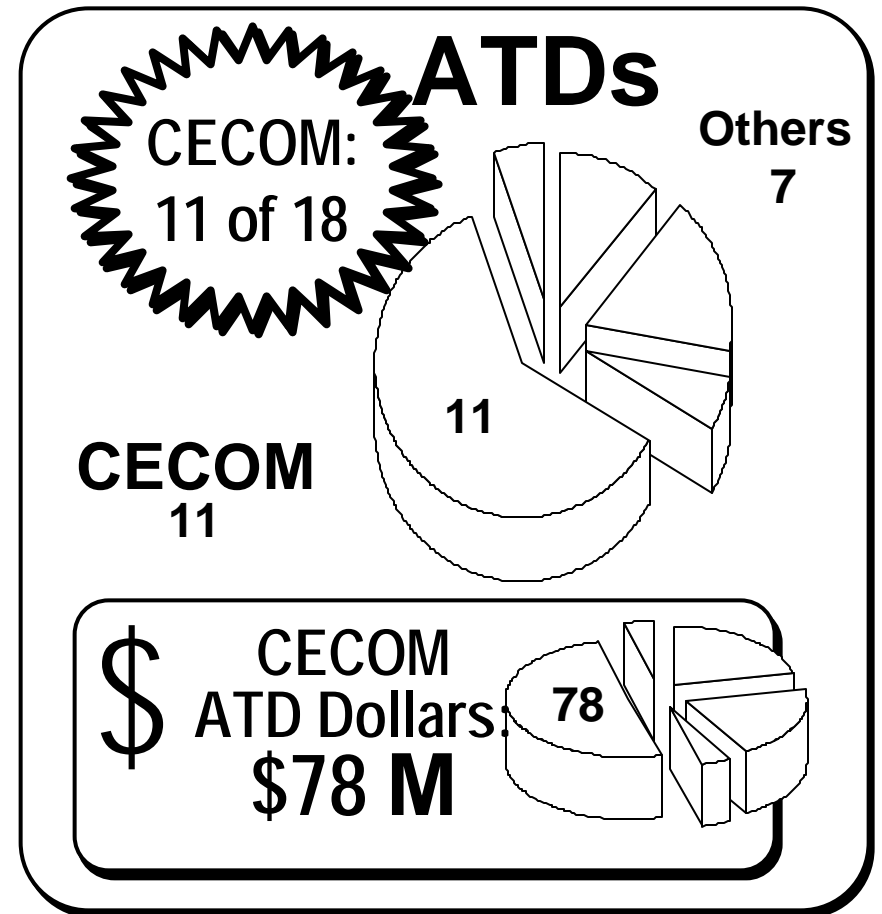
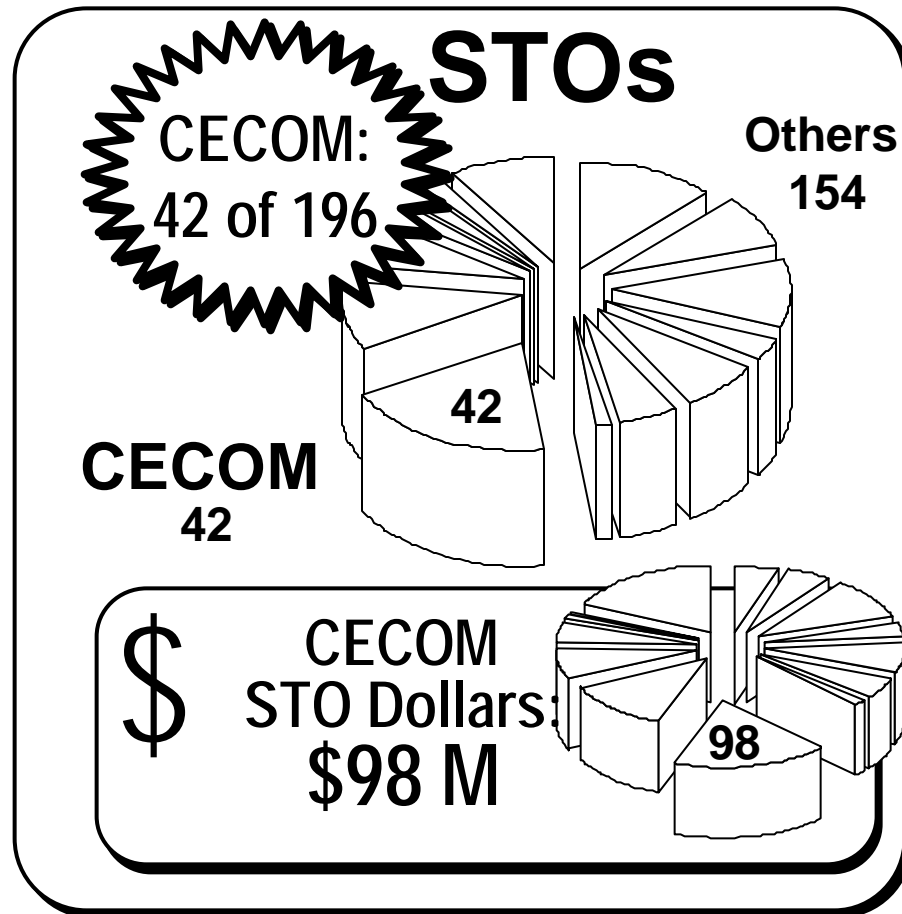
# Objective Force







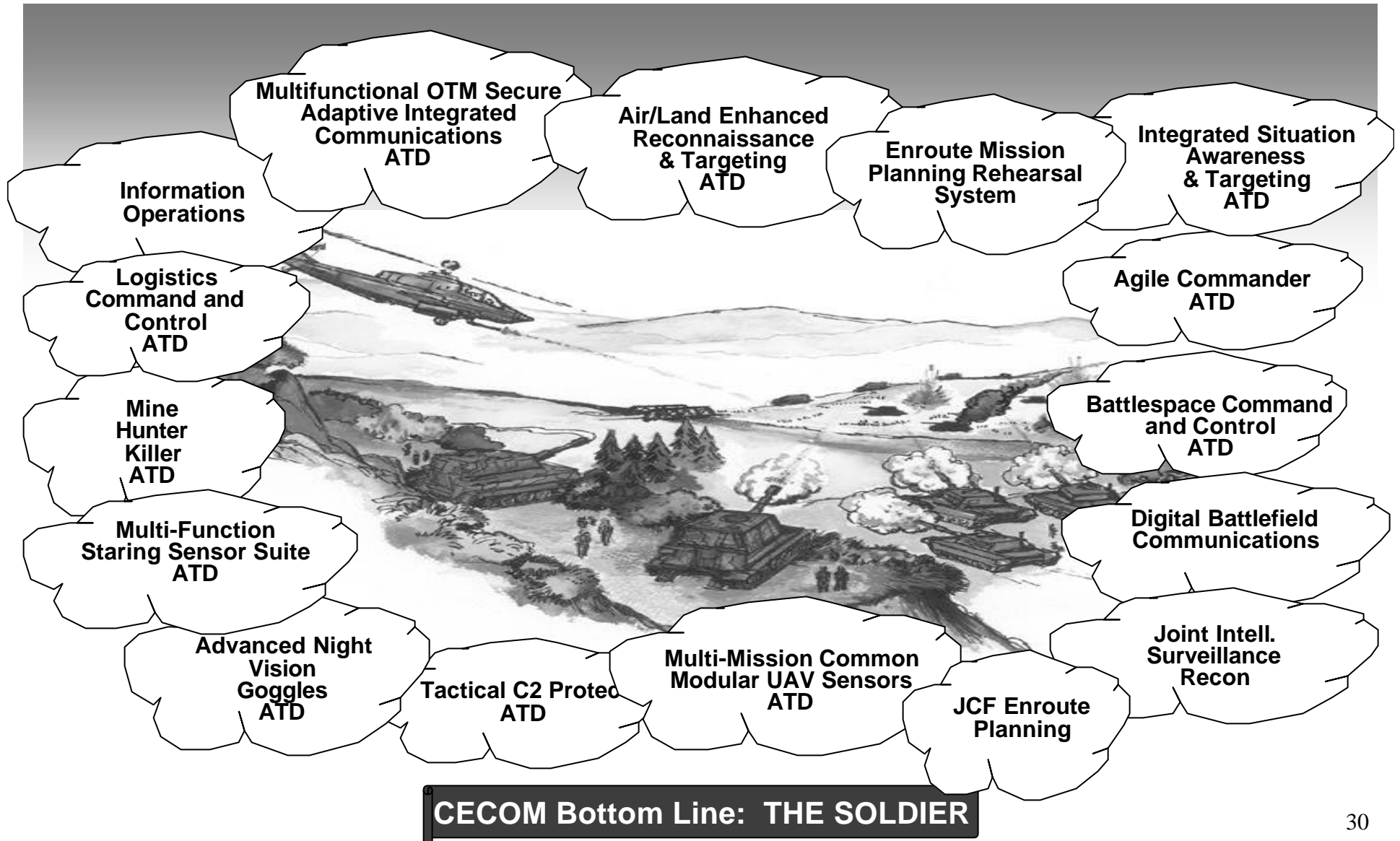
# Defined Army Needs



CECOM Bottom Line: THE SOLDIER



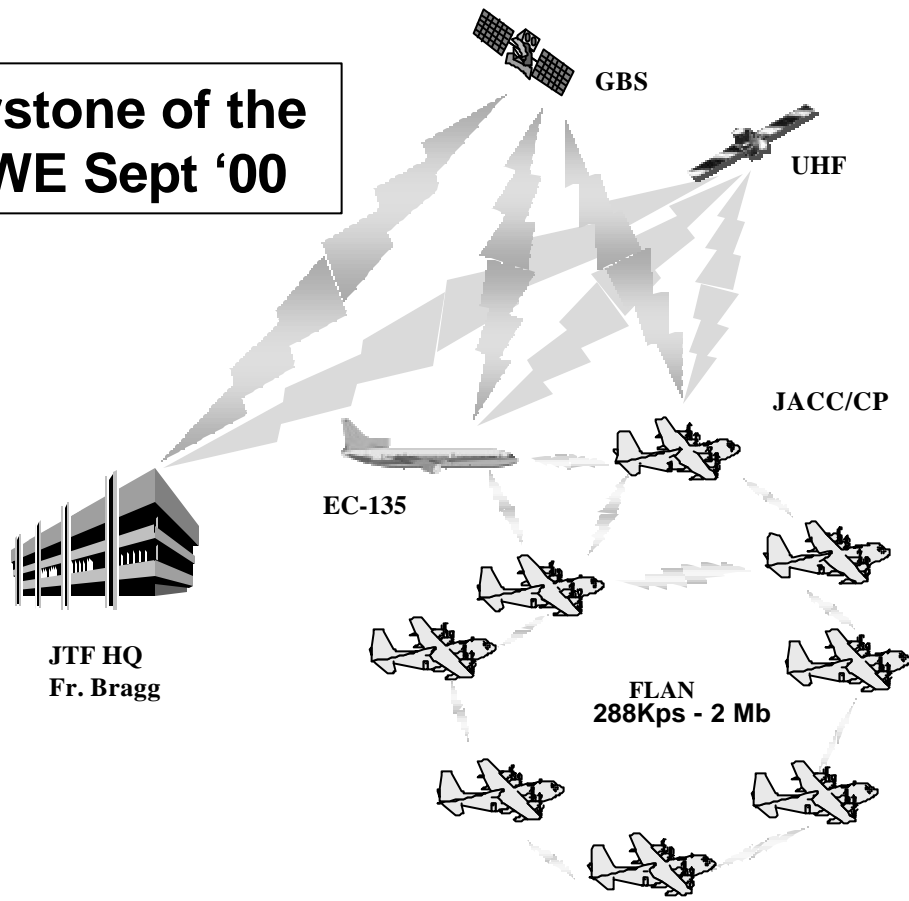
# CECOM ATDs and Programs





# Enroute Mission Planning and Rehearsal System (EMPRS)

Cornerstone of the JCF AWE Sept '00



## FUNCTIONALITIES

- Command Operational Picture / Common Tactical Picture (COP/CTP)
- Collaborative Planning
- Order/Overlay Dissemination
- Rehearsal
- Execution

**CECOM Bottom Line: THE SOLDIER**

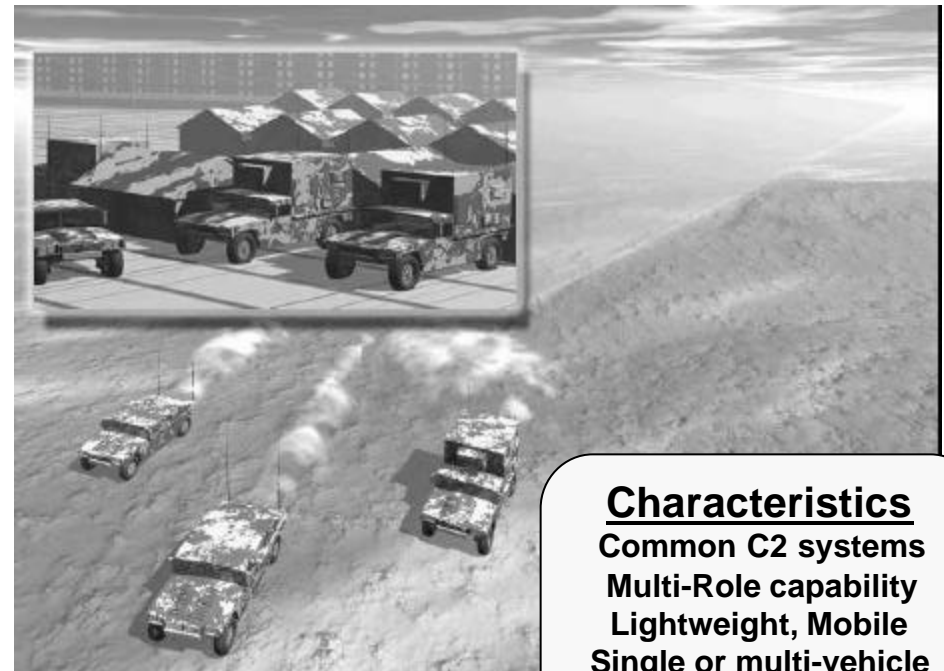


# Agile Commander ATD



**Demonstrate C2, Information, Automation, and Visualization technologies enabling a rapidly deployable, extremely agile, split-based headquarters with continuous battle planning and execution decision support**

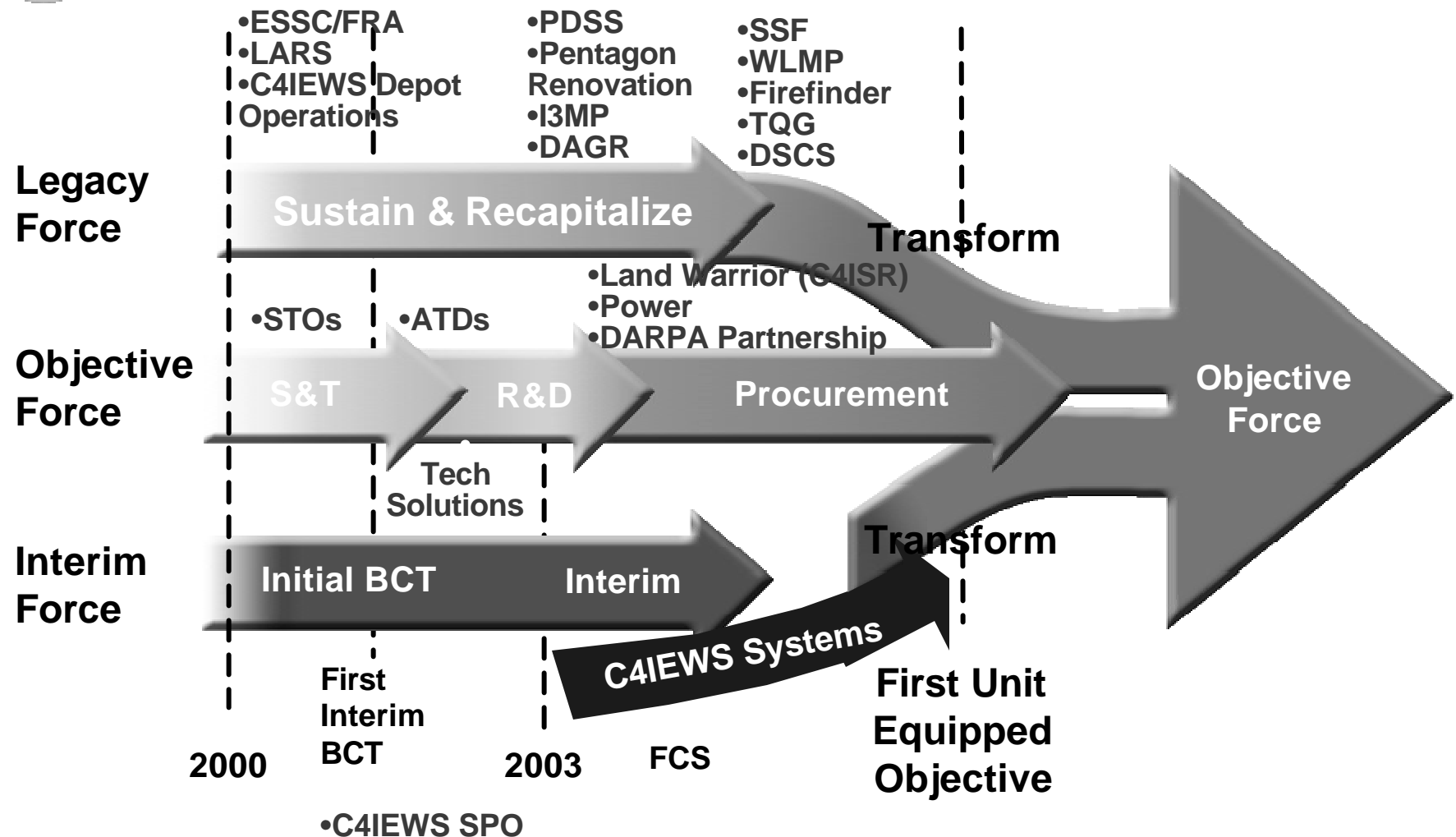
- Collaborative C2 planning tools
- Scaleable, rapidly configurable, multi-role C2 infrastructure linked to distributed enterprise information resources
- Profile-based, autonomous agent-driven “Battle Captain” supporting execution
- Communications network quality of service integration



**Characteristics**  
Common C2 systems  
Multi-Role capability  
Lightweight, Mobile  
Single or multi-vehicle  
Collocated or dispersed  
Stationary or on-the-move



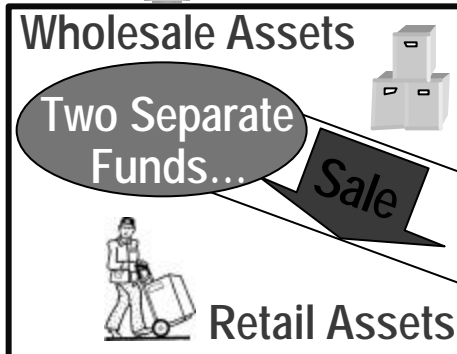
# Legacy Force



**CECOM Bottom Line: THE SOLDIER**



# Leading the Revolution in Military Logistics



CCSS  
SARSS  
AMCISS

## SINGLE STOCK FUND

- Began Business Process Reengineering
- Implemented within Legacy Systems

Integrate the retail & wholesale inventory management and financial accounting functions

Under a single manager, AMC

- Single point of sale & credit
- General ledger
- Asset visibility
- Broadcast budget stratification

## WHOLESALE LOGISTICS MODERNIZATION PROGRAM

- Provides real-time logistics information
- Adapts to keep pace with a dispersed and highly mobile force
- Supports improved processes that reduce:
  - Response time
  - Inventory
  - Footprint
  - Cost
- Is fully integrated



Modernizing AMC's wholesale logistics management systems through adoption of

- Best commercial business practices
- Associated information technology
- Strategic partnering with industry

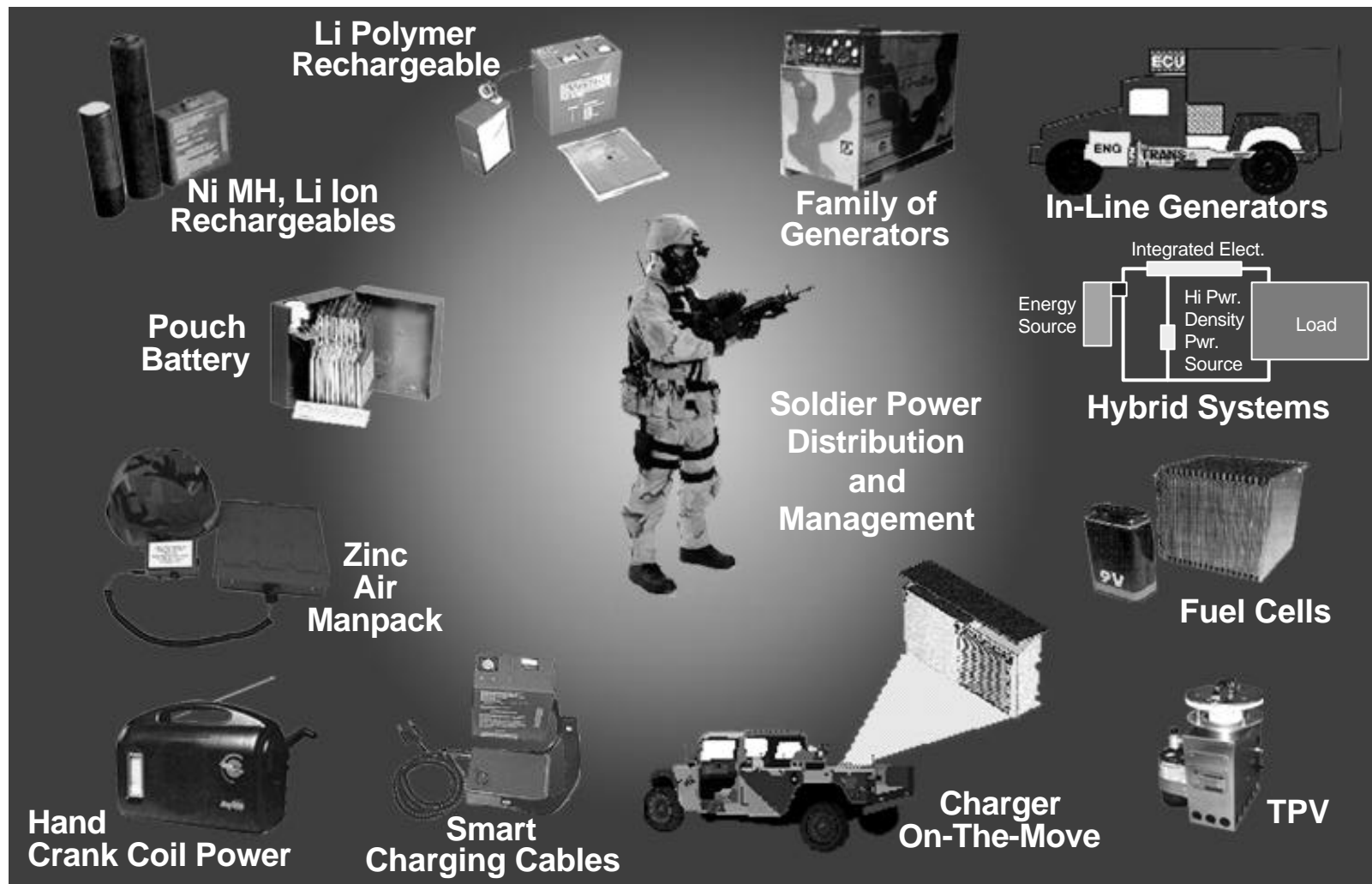
**CECOM Bottom Line: THE SOLDIER**



# Integrated Power Management



## *Army Power Sources Center of Excellence*



**CECOM Bottom Line: THE SOLDIER**

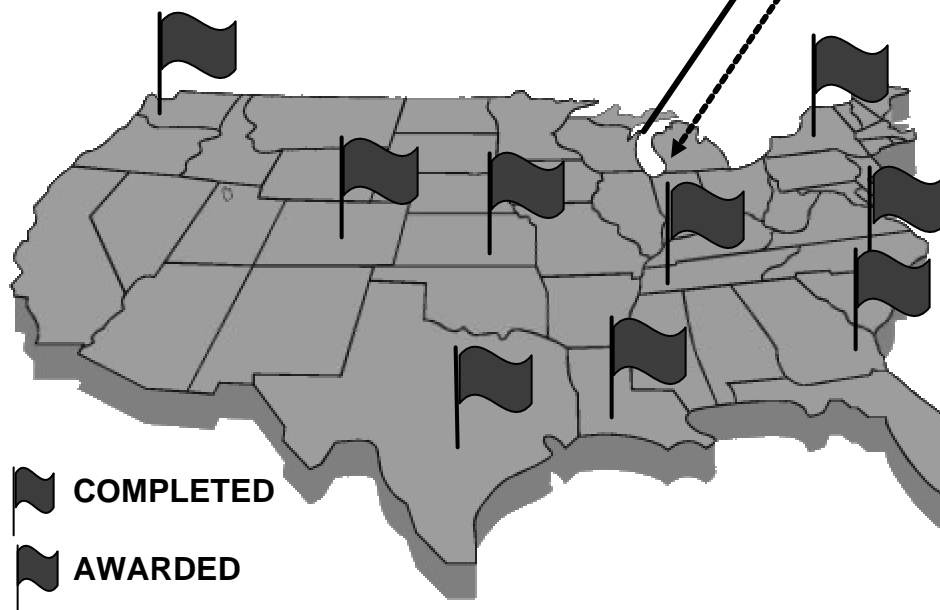


# Project The Force

## *Reducing the Footprint*

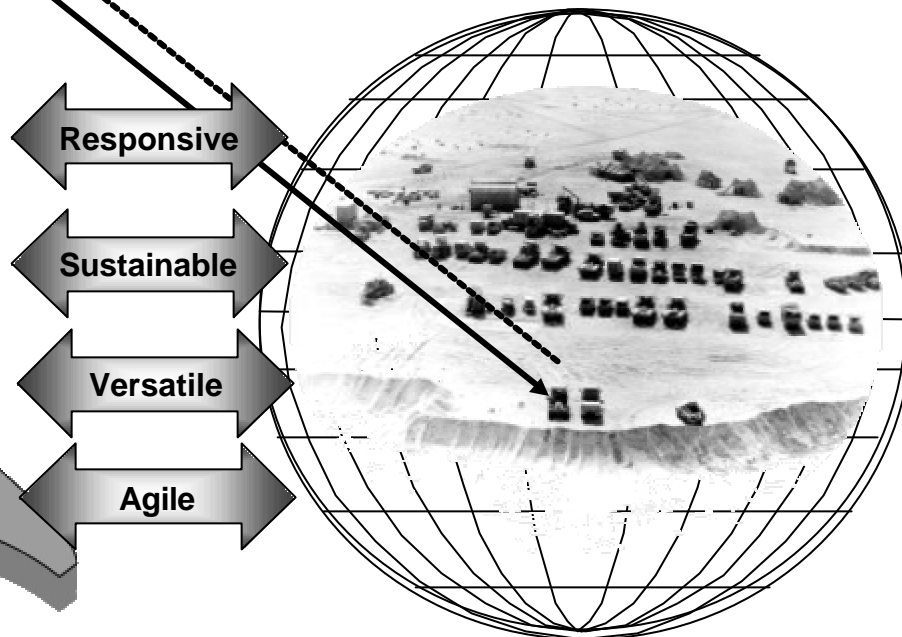
*If the Corps/Div rear boundary is the sustaining base and we are digitizing the battlefield, then we **MUST DIGITIZE** the installation.*

We are, with I3MP (Installation Information Infrastructure Modernization Program)



**Power Projection Platforms**

*"Third, we will develop a "reach-back" capability in communications and intelligence .... It's simple - if we don't deploy it, some maneuver commander won't have to feed it, fuel it, move it, house it, or protect it."*



**Deployable Battlespace**

**CECOM Bottom Line: THE SOLDIER**

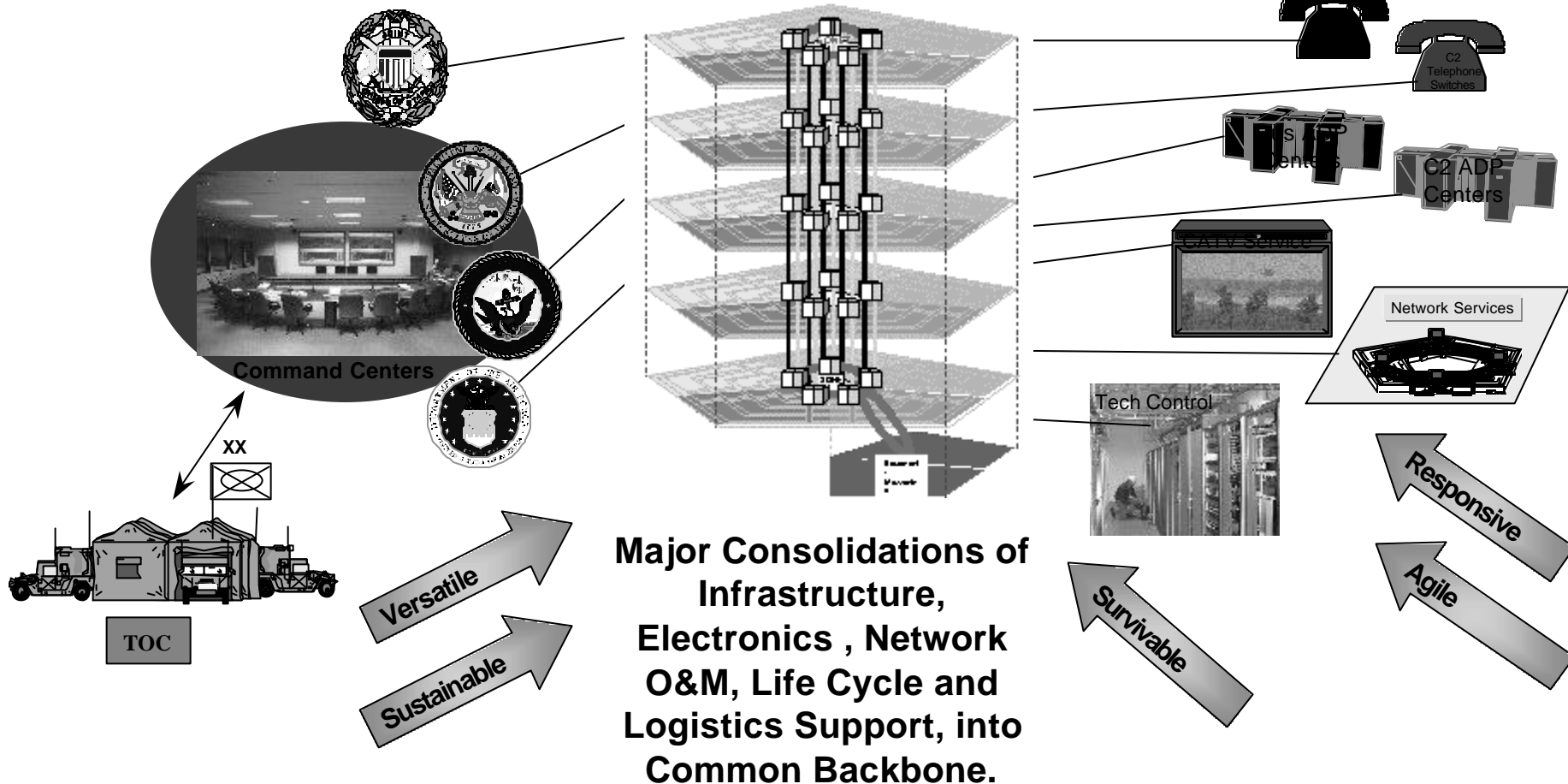






# Command Center Modernization

Common User RED/BLACK



**CECOM Bottom Line: THE SOLDIER**



# Summary



*To Achieve:*

- ✓ *A Rapidly Deployable and Agile Force,*
- ✓ *Reliable Split-Base Operations,*
- ✓ *C2I Information Superiority and,*
- ✓ *a Revolution in Military Logistics*

*You Must First Develop the Revolutionary Joint C4ISR Systems that will Enable These capabilities*

*On Po*

**CECOM Bottom Line: THE SOLDIER**

*Peace, Invincible in War*



# 21st CENTURY WARFIGHTER

*Integration  
from the  
Sustaining  
Base to the  
Battlespace*

*BCT  
FCS  
FDD*

*Pivotal  
Technologies  
and  
Products*

**Totally Integrated  
Solutions**

**CECOM Bottom Line: THE SOLDIER**